

REMARKS

Reconsideration of the application is requested.

Claims 24-46 are now in the application. Claims 24-46 are subject to examination. Claims 24-46 have been added. Claims 1-23 have been canceled to facilitate prosecution of the instant application.

Under the heading "Drawings" on page 2 of the above-identified Office Action, the Examiner objected to the drawings under 37 CFR 1.83(a).

The objectionable feature has been cancelled from the claims.

Under the heading "Specification" on page 3 of the above-identified Office Action, the Examiner required headings to be added to the specification.

The Examiner's suggested corrections have been made.

A new abstract has been provided as the Examiner required.

Under the heading "Informalities or Claim Objections" on page 3 of the above-identified Office Action, the Examiner objected to claims 2 and 4 because of an informality.

The Examiner's suggested corrections have been made in the new claims.

Under the heading "Informalities or Claim Objections" on page 3 of the above-identified Office Action, the Examiner objected to claims 6-23 as being in improper form.

These claims have been canceled.

Under the heading "Claim Rejections – 35 USC § 112" on page 4 of the above-identified Office Action, claims 1-23 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph.

Claims 1-23 have been canceled and claims 24- 46 have been added. Support for each of claims 24-46 can be found by referring to claims 1-23 in consecutive order.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, second paragraph. The above-noted changes to the claims are provided solely for clarification or cosmetic reasons. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claim for any reason related to the statutory requirements for a patent.

Under the heading "Claim Rejections – 35 USC § 103" on page 5 of the above-identified Office Action, claims 1-23 have been rejected as being obvious over

U.S. Patent No. 5,436,797 to Marmonier in view of U.S. Patent No. 4,215,256 to Sakaguchi et al. under 35 U.S.C. § 103. Applicants respectfully traverse.

Fig. 5 of Marmonier shows a multi-phase encapsulated gas-insulated high-voltage switchgear in horizontal construction. According to Fig. 1, it can be seen that several circuit breakers D1, D2, D3 are arranged in the known high-voltage switchgear (see column 2, lines 1-48). According to Fig. 4, each one of the circuit breakers D1, D2, D3 has several circuit breaker interrupter units, which are each arranged in parallel to one another [and horizontally] in a tubular-shaped switch enclosure. At least the circuit breaker D2 is assigned on both ends (referred to the longitudinal axis of the tube-shaped switch enclosure) to line connections in each case, which branch off (to the left of D2 E, to the right of D2, direction-changing module not described in more detail).

More detailed comments on how a drive force could be entered into the switch enclosure of the circuit breakers D1, D2 or D3 cannot be acquired from the figure or from the appertaining description.

With the knowledge of one of ordinary skill in the art, the rectangular boxes each arranged at the front side might possibly be interpreted as being drive devices. Marmonier himself, however, does not give any indication as to the refinement of introducing a drive movement into the circuit breaker interrupter units. The rectangular boxes might represent drive units generating driving forces onto the moveable contact pieces of the circuit breaker interrupter units

by means of push rods inserted into the tubular-shaped switch enclosures on the front side. The rectangular boxes are always arranged at tubular-shaped encapsulation enclosures (see enclosure).

The most that one of ordinary skill in the art can acquire from Marmonier is that a drive movement for introducing drive forces into the switch enclosure always occurs at the front sides of the tubular-shaped switch enclosures of D1, D2 or D3. The lateral surfaces of the switch enclosures of the circuit breakers D1, D2, D3 are entirely free of any attaching part, and thus of any drive device.

Claim 24 requires arranging end-side connecting flanges at the switch enclosure for connecting further encapsulation modules, in which case at least two modules are used as encapsulation modules for changing the direction of the electrical connections of the interrupter units into the line connections that branch off. It must be noted that the angled modules (E), which connect to the switch enclosure of the circuit breaker D2, most likely have flanges at their disposal, which are connected at the end face with flanges of the tubular switch enclosures (D2). The modules (E) are used for changing the direction of the interrupter units of D2.

Additionally, claim 24 includes further features, which Marmonier does not show. A drive device 3 for introducing drive forces into the switch enclosure has a rotary bearing at its disposal on the side of the switch enclosure, which

bearing is arranged in the casing region of the switch enclosure (of the circuit breaker interrupter units).

Marmonier does not disclose a drive device for introducing drive forces, the drive device having a rotary bearing arranged in the casing region of the switch enclosure to the side of the switch enclosure.

Marmonier also provides no indication that the manner of coupling the drive movement for the moveable contact pieces of the circuit breaker interrupter units would be problematic in any way. There is not even an indication as to how this movement would have to be initiated (merely our interpretation is there - see enclosure). Apparently, the subject of drive movements represents no problem. In a construction according to Marmonier, room is always available on the ends in order to arrange drive units there (rectangular boxes) to couple a drive movement from the front side into the housing of the circuit breaker D (see Figs. 5, 6, 7 enclosed to this letter).

Applicant believes that the Examiner has used knowledge of the invention as a suggestion to now begun to look for the missing features in Sakaguchi et al. Marmonier does not suggest such a search (neither generally nor specifically in Sakaguchi et al.). Thus, applicant believes that the teachings of Marmonier and Sakaguchi et al. would only be combined with the knowledge of the invention while looking retrospectively for the missing features in the state of the art in a mosaic-like manner. Such a retrospective view is inadmissible.

Rather, one must start out from the existing state of the art and check whether Marmonier and Sakaguchi et al. would have been combined in an obvious manner, which means, one of ordinary skill in the art must somehow be motivated, working on the basis of Marmonier, to take features from Sakaguchi et al. and incorporate them into the construction of Marmonier.

The Examiner refers to Fig. 7 of Sakaguchi et al. and alleges that the missing features are disclosed there. Apparently, Fig. 7 also shows a circuit breaker (CB, column 4, lines 65-66), which, with its enclosure (housing) of essentially tubular shape, is arranged in a horizontal position. Regarding the drive of the circuit breaker, the Examiner further refers to Fig. 4 of Sakaguchi et al. Fig. 4, however, shows switch devices DSA and DSB (disconnecting switch A, disconnecting switch B). It is outlined in column 4, lines 9-26 that a connection is created of the disconnecting switch A and the disconnecting switch B (DSA, DSB) as well as the first disconnect gap 14 and the second disconnect gap 16 (column 2, line 50 to column 3, line 14). Thus, Fig. 4 is a cross-sectional view of the left part of the configuration shown in Fig. 7 (to the left of CB). Fig. 5, on the other hand, is a cross-sectional view of the cutting plane V-V shown in Fig. 4. The top edge illustrated in fractions in Fig. 4 represents the connection to the circuit breaker CB (reference numeral 88) (see enclosure to this letter). DSA as well as DSB and CB have single-phase encapsulation; and not polyphase encapsulation as specified in the preamble of claim 24. The conductors of each phase of DSA and DSB are arranged concentrically

individually to a tubular-shaped encapsulation enclosure (see Fig. 4, Fig. 5).

Only the collecting tracks BUSA, BUSB are of multiphase-insulated design (see Figs. 7 and 8).

The drive units (actuator 66 and actuator 68) are arranged in the figure at the lower end. The actuators 66 and 68 can be moved independently from one another and serve for moving the contacts 20 and 21, which each are the moveable contacts of the disconnecting switches DSA and DSB (column 3, lines 59-62). As can be recognized in Fig. 4, the actuators are arranged at the left end of Fig. 7 so that a movement via the actuators 66 and 68 relative to the longitudinal axis of the tubular-shaped encapsulation enclosure is inserted at the front side. Besides that, the encapsulation enclosures of DSA and DSB are aligned in the vertical direction. Except for one configuration in the same switchgear, DSA and DSB have nothing to do with the CB. DSA and DSB as well as CB work and are effective entirely independently from one another. No configuration, on the side of the casing, of a drive mechanism on CB is disclosed.

The reference to Sakaguchi et al. does not provide any teaching or suggestion regarding the construction of the drive device or a transfer of a drive movement to the interrupter units of the circuit breaker (CB). The interrupter units of the circuit breaker are not even illustrated. Furthermore, the interrupter units of the circuit breaker CB of each phase are arranged in a separate encapsulation enclosure (see plan view of Fig. 8). Thus, the CB is not even of multiphase

design. Since the only actuators that are illustrated are assigned to disconnecting switches and these actuators have no operating effect on the circuit breaker, it is questionable how a construction for moving disconnecting switches can teach or suggest coupling a movement into a circuit breaker on the casing side (in particular, if the latter lie on the front side to the CB).

A combination of the drives 68 and 66 with a circuit breaker is excluded because disconnecting switches are provided with drives that run slower and have less energetic capacity. This is because disconnecting switches are always switched in a dead state. Circuit breakers, however, are provided for switching nominal currents and short-circuit currents so that a corresponding quick switching-off must be done within milliseconds by energy-strong drives. This excludes the combination of drives for disconnecting switches and drives for circuit breakers or for exchanging them against one another.

Even if one assumes that the actuators 66, 68 are capable of producing a movement for the circuit breaker, one must note that even according to Sakaguchi et al. the coupling of the movement would occur at the front side of the circuit breaker. As is the case in Marmonier, an end-side coupling of a movement is always provided at the tubular-shaped enclosure of a circuit breaker.



Thus, it is clear that even a combination of Marmonier and Sakaguchi et al. does not teach or suggest a drive device for a circuit breaker as defined in claim 24.

In applicant's opinion, the differences between the invention and the teaching in Marmonier and Sakaguchi et al. are numerous: multiphase-insulated circuit breakers and single-phase insulated circuit breakers; end-face configuration of drives for the circuit breakers or end-face configuration of drives for disconnecting switches; no indication at all as to the movement for the circuit breaker, etc.

Solely Figs. 7, 8, 9 and 10 according to Sakaguchi et al. provide more detailed information on the construction of the enclosure of the respective circuit breaker (CB).

However, the precise construction remains unclear. Flanges are recognizable in the respective figures (see enclosure, Fig. 7 with an inserted flange). If one assumes that the flanges border a joint enclosure of CB, DSA and DSB, the enclosure is of asymmetrical design. If a joint enclosure is present, there can be no motivation for an asymmetrical enclosure.

If, in the alternative, one assumes that the blocks extending to the right and the left of CB are specifically not added in one piece, but a transverse division of the enclosure is possible at each level, one must note that the enclosure of the

circuit breaker is then limited to the actual tubular form of the CB. That the encapsulation enclosure of the CB is transversely divided is likewise not disclosed in such an interpretation of the figures according to Sakaguchi et al.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 24 or 46. Claims 24 and 46 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 24.

In view of the foregoing, reconsideration and allowance of claims 24-46 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Sterner LLP, No. 12-1099.

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Respectfully submitted,

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MPW:cgm

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